

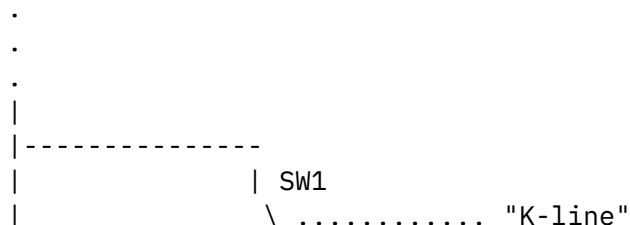
From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: jwg6@cornell.edu (Joel Govostes)
Subject: [8670] 6-meter FM simplex freq?
Message-ID: <v02120003adc2edd3b021@[132.236.155.24]>

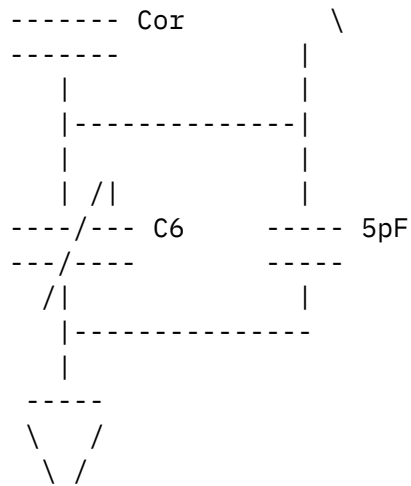
This is not necessarily qrp-oriented, but does anyone know the FM simplex frequency on six meters? I would like to program it into my scanner to see if i can hear activity direct when conditions warrant. With the popularity of 6M FM growing there are quite a few mobile stations, and when the band opens they must go to simplex to have some fun (i'd imagine). Many thanks, and hope the sprint is good this weekend!
73, N1AEP

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: mizrahi@svlhp8.scs.philips.com
Subject: [8667] A Worthwhile Offset Circuit for the 40-9er
Message-ID: <9605172015.AA15007@svln20.scs.philips.com>

A Worthwhile Offset Circuit for a VX0 - Finally!!!

We have tried many approaches to an offset circuit for the 40-9er. The first one involved switching on a small capacitor parallel to C6 on key-down, but as Larry East said, the offset range was 200-1200, not really ideal. In addition, the diode switch used to switch in this capacitor caused a big loss of signal, and the 40-9er transmit chain does not suffer from excessive gain... Then we started fiddling with a circuit that switches on during receive, to avoid the lower transmit power. Still the range was very wide. The better solution was to go with a series capacitor, rather than a parallel one. The value added to the circuit now depends on the main capacitor C6, so the range of the offset in this circuit is lower. The concept is pictured below for a modified circuit (C6 relocated to ground) but works the same for the original circuit:





The switch SW1 is controlled by the K-line in a way that it's "open" on TX and "short" on RX (or vice versa).

The "switch" is implemented by means of a forward conducting diode with key down and we'll not give here the actual circuit tried, since we have a better one...

The circuit as is resulted in a severely reduced tuning range.

The next step was to show that switching between two capacitance values will have a similar effect on the offset.

The motivation behind this type circuit is that it can be implemented using a VARACTOR DIODE, so that it avoids the lossy diode switch!

Well, it's always easy to say than do and all this information contained above was derived from long hours in the lab throughout a few days period, mainly by Alan Kaul. It's not only the time, Alan tore his 40-9er apart and killed a few components in the process... not to mention that the lab technician where he works started getting a bit ancy...

Alan did all this work "between" job duties, but then work took him half way across the country. I must tell you how serious Alan is about these mods.

I asked him before his trip if he has a lab in those other places and Alan apologized/answered that they ship repairs to the main lab and there is no worthwhile lab there...

I'm sure he would have continued the work even away from home, and for that dedication I can't thank him enough.

So, I've completed some more lab work here.

I thought that this is close to final, and we only need more work to see if we have any side effects (like harmonics from rectification).

My prototype circuit "looked OK" on the scope and with the -40dBC F2 attenuation (pretty good, ah?) that Alan is getting from the 1300-0.68-1300 output filter, I thought it's worthwhile trying in

the 40-9er.

But then I went out for dinner last night and I'm not sure if it was the food that did it (I'll keep it a secret, maybe it was the food) but suddenly it dawned on me that there is a better solution.

I guess if I were naked in the bath I would've run out yelling "Eureka", thanks God I wasn't!

Remember the first circuit with the parallel capacitor? That one gave a huge offset range but - the offset got smaller as the capacitor C6 became bigger, i.e. at the lower frequencies.

The series capacitor is exactly the opposite! It contributes more offset at the low frequencies.

So, all we need now is a BALANCE between the two.

Admittedly, this is more complicated than I was hoping to end up with and it still needs some more refinements.

The only thing is that so many people wanted this fix that I'm going to post it as is, although it can (and will) be improved.

This is fresh off the press, I haven't installed it in my 40-9er but I have tried and measured on the prototype board this morning in the lab here offset and signal levels.

The circuit uses off the shelf diodes as varicaps.

Other than diodes D1, D2 and D3 everything else is approximate values only. Feel free to use 120K if you don't have 100K in your junk box...

Experiment with different voltage levels on the varicaps, you may get closer to the ideal circuit before Alan and myself!

The prototype board measured as follows:

freq(Rx)	Freq(Tx)	offset (Hz)	Swing (mV,p-p)
7037.86	7037.16	700	592
38.50	37.77	730	520
39.00	38.20	800	456
39.50	38.60	900	396
40.00	38.95	1150	348
40.36	39.21	1150	328

Offset varies from 700 (at 7037.86) to 1150 (at 7040.36).

The range is only 2.5KHz, but add to it the offset and you get about 3.2 KHz. A better selection of varactors and/or voltage levels will improve the range, but... power drops quite a bit at the higher frequencies (look at the swing levels in the table), so maybe we'd be better off leaving the top end as is and concentrate on increasing the low end of the frequency range only.

To put things in perspective, the swing levels measured here are consistent with the swing levels of the unmodified VXO circuit at the same frequencies. For this reason we shouldn't see any drop in output power at the same frequency, compared to the original circuit.

I cannot emphasize more the importance of replacing the regulator (going to the NE602) with a 78L06 or 78L08 - it's so much better as far as driving the transmit chain - very noticeable in the lab.

JUST DO IT!

The circuit is shown here for a modified radio, where the tuning capacitor C6 was relocated to ground.

The way it works is very simple.

Diode D1, D2 form a series varactor and diode D3 forms a parallel varactor, all in respect to the tuning capacitor C6.

These diodes never conduct DC.

R3 and R4 just isolate the DC bias circuit (on the right) from the oscillator circuitry, so we don't degrade its Q. Since there's no DC current through the varactor diode, the values of R3 and R4 are not too critical.

When K-line is floating (on receive), the voltage across the varactors is the full supply voltage (from the regulator).

In transmit, K-line is shorted to ground and we now have a voltage divider made of R1 and R2. The voltage across on the varactors is then:

$$V(D1) = 0.6 + ((V_{cc}-0.6) * (R2/(R1+R2)))$$

The 0.6 term is roughly the voltage drop on diode D4 when it's conducting. So, there you have it.

By varying the series capacitor, we achieve a change in the resonance frequency of the oscillator circuit, thus generate an offset.

This circuit is preliminary and shown for a modified oscillator.

Some more work will be done next week to refine it, so you may want to wait for these results.

But, if you feel the itch to experiment... GO FOR IT!

WE HAD LOTS OF FUN AND I'M SURE YOU WOULD TOO!

72/73 DE ORI AC6AN ES ALAN W6RCL

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996

From: "N100Q Tom R. @ MR01 17-May-1996 1542" <randolph@est.ENET.dec.com>

Subject: [8665] Argo 505?

Message-ID: <9605171946.AA04699@us4irmc.pko.dec.com>

Ok Ten-Tec fans,

I might get a Argonaut 505 w/ manuals for \$75. The hitch is that the RX is dead, and it could use a new dial cord. Worth it or no?

-Tom Randolph N100Q randolph@est.enet.dec.com

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: BobWicks@aol.com
Subject: [8650] Attention: users of Kenwood TS50S and ICOM 706
Message-ID: <960517082010_537121002@emout10.mail.aol.com>

I am looking for a source of the power plug to fit a TS50S or ICOM 706. No cord, just the plug. I am planning to use my rig for QRP in the field using battery power. Kenwood does not supply the plug without the entire power cord. If you can help I will be in your debt.

Bobwicks@aol.com

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: robert fowle <hammarlund@voyager.net>
Subject: [8668] FS: air variables \$4.50 ea. shipped
Message-ID: <199605171911.PAA14511@vixa.voyager.net>

I need to make room here in the shack. so take your pick, \$4.50 each shipped. Regardless of the price it is marked.....
I WOULD CONSIDER A TRADE FOR ALL

qty.- part# - capacity (if known)
Hammarlund:

1/ 34604-5		
1/ 34604-6		
1/ 351-1059		
1/ 4111-49		
1/ 48A084		
1/ 5003-C C1C		
1/ 9404-18-00040		
2/ 9411-72-50379		
2/ 9411-72-60348		
1/ 11727-77		
1/ A8H501		
1/ APC 25	3.0-25.	
4/ ASP 100 G		\$13.00 ea
1/ APC 100	5.5-100	\$13.00 ea
5/ APC 140	6.7-140	\$13.00 ea

1/ B-253-124-2			
1/ B-7485-440-2			
1/ C 67380			
3/ CT 1E040	5.0-40		
1/ CT 1E075	6.0-75.		
1/ CT 1F040	5.0-40.		
1/ CT 3C040			
1/ CT 14E042-M	5.0-42		
1/ CT 14E042-J	3.0-10.		
1/ CT 14F010-J	3.0-10.		
1/ CT 14F042-J	5.0-42		
1/ CT 1316047-J	5.5-47.		
2/ ES 676693-5			
2/ KS-13772			
3/ KS-13998L1			
1/ KS 18998L14			
1/ MACBF-3	1.3-3.1		
1/ MAC-5			
1/ HF-15-X			
1/ HF-50			
1/ MAC-20	2.0-21.5		
2/ MABF-8	2.0-7.9		
1/ MAPC-100	4.5-100.	\$13.00	
1/ MCD-35 MX	6.0-31.	\$15.00	
1/ MJ-50-5			
1/ P-31800014			
1/ P-7761345-15			
1/ 34452-40			
4/ 841690			
1/ 2 SECTION BRASS		\$15	
CARDWELL			
2/ A-105623	25MuFD	\$18.00	ea
3/ ZU-100-AS	3.0-100.	\$15.00	ea

CARDWELL MT-100-GS
 CARDWELL XR-375-PS
 P-7761569 PT-2
 CARDWELL XP-165-KS
 CARDWELL XP-90-KD
 3 SECTION 4-20 MMF (ON CERAMIC BASE)
 BUD 2 SECTION BRASS (ON CERAMIC BASE)
 CARDWELL XG-110-XD DUAL SECTION
 MCD-50-M
 \$13
 DUAL T-7660443-6
 \$15

CARDWELL NA-12-NDI each with a CARDWELL C90A ATTACHED \$13 ea.

2 T-7660443-8 8-25 UUFD

\$13 ea

T-7660443-6 20-130 TOTAL \$15

BUD BRASS 1 SECTION \$13

6-140 MMFD

\$15

CARDWELL ER-15-AD Z , 2 SECTION \$13

CARDWELL A-105268 2 SECTION \$13

L-72949 -- C3302

\$13

L-72951 -- M 3 340

\$13

TELERADIO 13859

\$10 ea

=====] - [->

Robert Fowle KC8DBC

The HAMMARLUND Historian

Ph. voice or fax 517-789-6721

1215 Winifred

Jackson, Mich. 49202-1946

E-mail at: hammarlund@vixa.voyager.net

HAMMARLUND LITERATURE WANTED

WANTED: MANUALS FOR ANY MAKE RADIO EQUIPMENT

=====] - [->

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996

From: Nick Franco <kf2ph@bnl.gov>

Subject: [8664] HW-8 For Sale

Message-ID: <319CD5AA.79AA@bnl.gov>

Hi Gang,

For those of us who are not at Dayton buying everything in sight...

My friend Mike-AA2QO is selling his HW-8 and asked if I would post a message to the group here, so here's a snip from his request to me:

Could you please post my HW8 for sale.

150.00 gets

manual

power supply

transciever with internal dummy load

built-in keyer with speed control

amplified internal speaker
Home Brew Adjustable Paddles

I've seen and used this HW-8 and it works fine on all it's original bands (80,40,20,15). He's added a few goodies that make it more pleasureable to operate, like the keyer and speaker, etc. Mike has use this gem on several camping and hiking trips as well as just for pleasure. I'm hoping he subscribes to the QRP-L soon as he just got his own email address. Please reply directly to him at AA2Q0@aol.com

Thanks for the bandwidth.

ob_QRP:

KF2PH TMPS 1996 Qs=020 States=09 Confirmed=02 DX=03
NY,TN,WI,IN,SC,IA,IL,OH,MO

72 es CUL
Nick

--

Nicholas J. Franco <>< BROOKHAVEN NATIONAL LABORATORY
Sr. Systems Specialist RHIC Project - Building 1005 - Room 201
Tel: (516) 344-5467 Fax: (516) 344-3674 UPTON, N.Y. 11973-5000
Email: kf2ph@bnl.gov <http://www.rhichome.bnl.gov/People/franco>

From owner-qrp-l@Lehigh.EDU Fri May 17 22:32:07 1996
From: "Juan M. Perales" <jmperales@canaldinamic.es>
Subject: [8648] IF interference in Argonaut 509
Message-ID: <199605170454.GAA24287@canaldinamic.es>

On 14 May 96,Per OZ1KAD wrote:

>I'm the proud owner of the TenTec Argonaut 509 as the ONLY rig for HF I= have.

>My problem is, that in 20meters I have a woodpecker with sigs about 6-7s= :- (

>.....

Hello.

I think you are right being concerned about a IF interference. You could try to adjust the IF trap of the front end of the receiver, but for a good adjust it is necessary a 9 MHz RF source.

I had some problems with my 509 in 21 MHz band, with some image signals. I tried to realign the front end without improving performance. The front end section is too simple for a perfect image and IF rejection (but is quite good for a QRP rig).

I am working now with a homemade RF external preselector/preamplifier with three tuned LC circuits and a BF256 MOS FET transistor. It provides good rejection for the Argonaut and also for a Kenwood R300 general coverage receiver, which has 455 Khz IF with bad image rejection above 12 MHz.

I=B4ve worked with a 1/2 wave vertical for CB, shortening this to 10 meter band, and placing two or three ground wires cutted for 20 meter band. Depending of the feed system, you can obtain good performance on 10 and 20. I solved the feed problem with a remote relay (changing from 1/2 wave to quarter wave feed).

I made more than 100 countries in three year with my 509 and a GP ant. Why to do complex things if you can do it simple? (KISS theory about life).

Excuse me for my spanglish. I=B4m trying to write better every year. ;-) =
=20

Juan M Perales, EA6NP
JM19mq
Mallorca Island, Spain

Member of ARRL, URE, RCCM, QRP-1 #546

jimperales@canaldinamic.es
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<http://ourworld.compuserve.com/homepages/jimperales>

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<http://ourworld.compuserve.com/homepages/jimperales>

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: Stan Skelton <sskelton@cln.etc.bc.ca>
Subject: [8659] Micronauts et al.
Message-ID: <Pine.3.89.9605170915.B23418-0100000@sparky>

Hi all...I've received lots of mail requesting more info on Micronauts, so here's what I can remember from CQ April & May.....

It's a plan for a microwatt level transmitter on 80 or 40 or 30 or 20 meters that's really simple and quite easy to build from scratch. I'm in the process of doing that right now. Oh yah, it can be built on a 1.5 inch by 1 inch piece of perfboard. There's a company (advertising in May CQ on p. 42 I think) that is producing 2 kits, one regular size and the other using micro-miniature parts on a surface mount board for \$14.95. The kits won't be available for shipping till the end of May, so can't say anything about them as yet. Will keep everyone advised about the scratch built version next week...

TtFn....Stan T.M. VE7 SKT QRP-L #34

From owner-qrp-l@Lehigh.EDU Fri May 17 22:32:07 1996
From: KFGlynn@aol.com
Subject: [8653] Need St Louis Tuner Construction Notes
Message-ID: <960517095438_296264134@emout16.mail.aol.com>

Hi gang,

I just recd my tuner yesterday in the mail. Very good job in shipping. Thanks to everyone who made this project project possible.

Wanted to get the latest info on mods/construction notes. Does anyone know the filename in the archives? I appreciate it.

73 Kevin KB2TE0

From owner-qrp-l@Lehigh.EDU Fri May 17 22:32:07 1996
From: owen.nelson@smtp.prostar.com
Subject: [8649] Special Event
Message-ID: <199605170759.DAA05648@nss2.CC.Lehigh.EDU>

Greetings,

Just a quick note to let you all know that we (the Radio Club of Tacoma) will be at Mt. St. Helens this weekend for the 16th anniversary of the eruption.

I will try to get in some QRP time, probably on phone but please listen on all bands and modes for WA7ASH and give us a call.

Have fun,

Owen - KB7UXP

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: Bob Hightower <ki7mn@dancris.com>
Subject: [8656] St Louis Tuner notes
Message-ID: <199605171447.HAA25755@user.dancris.com>

For those just getting their tuner kits who have not previously noted the thread on this, the web page with the construction tips/errata is at:

<http://www.fix.net/norcal.html>

There may also be a list on the qrp-1 ftp site, but I don't have the address.
73,
Bob KI7MN NorCal 1221 ARCI 8918 Qrp-1 271 CQC 274 ARRL (Not in any
order of importance!)

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: Steve Slavsky <sslavsky@CapAccess.org>
Subject: [8651] St. Louis Tuner #225
Message-ID: <Pine.SUN.3.91-FP.960517084050.25757A-1000000@cap1.capaccess.org>

My tuner, #225, arrived yesterday in Reston, VA. It was mailed on May 13, so it took only 3 days to transit the country. Everything looked fine inside, but I have not had time to inventory - all the big stuff was there, anyway. Hope to build it by next weekend, with any luck.

Another great job by NorCal and all the volunteers - thank you for your efforts.

Questions to come - I can't build anything without lots of questions.

73 & 72,

Steve, N4EUK
Reston, VA

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: DYARNES@aol.com
Subject: [8655] St. Louis Tuner Construction Tips
Message-ID: <960517104318_115579219@emout14.mail.aol.com>

Hi Gang,

SLT #96 is up and running. This is a very spiffy little project! It's another winner for Doug and Jim. I've got tuners all over the place around here, but I certainly am glad I put in for this one.

I'm sure not a construction pro like many of you are, but I do have a few suggestions from my experience. I thought I would pass them on.

First of all, this thing goes together very nicely. Just be sure you proceed carefully so that you don't skip a step. I suggest you read the instructions several times before starting and use a hi-liter for steps you think are more critical or easy to skip over accidentally.

Be SURE you pull WA7FCU's updates to the instructions off the NorCal page on the internet. This will save you considerable time and confusion. I marked the updates in Doug's instruction and cross referenced them.

I don't know about you, but I was a little unsure about where to drill the holes for the PC board. I waited until I had installed most of the parts on both the front and back panels, then I temporarily put those panels in place on the chassis so I could get some perspective about the PC board placement. This worked well for me. By the way, in WA7FCU's updates it is suggested that you mount the board on the left. I agree with this, but you still need to be careful not to crowd the front or back panels.

I had some problems with a couple of the 5 way binding posts. The nuts were not exactly right or something. Even though I tried to be very careful about not stripping the threads, the nuts seemed to want to do just that. Anyway, I found some nylon nuts at Ace Hardware which actually worked better than the metal nuts that come with the binding posts. I almost wish I had used these nuts on all the posts (except possibly the one that requires a ground lug). They were nice and fat and easy to work with using your fingers.

BEFORE you mount the PC board to the chassis, make sure you have made connections to all the holes on the board. Because the instructions are not in steps you check off, it is easy to miss some of the short steps like "Repeat for M2". I missed that one with my hi-liter and had to take the board back off.

There has been a lot of discussion about how to mount the variables. I didn't have that much trouble mounting them, although it does take a little finger work. Holding the panel with the outside facing down, I put the nylon screws in the holes and held them in place with my fingers. Then I put the nylon washers on the inside over the screws. Then CAREFULLY rotate the panel almost 90 degrees so that you are holding it sideways but don't let the washers fall off. Now bring the variable to meet the screws (you should be able to "feel" when the screws are in or near the holes) and then turn the panel over a little further so that you have the inside facing more downward.

Gravity then becomes your third hand. You should be able to carefully rest the panel against the variable and free up one hand. This should be the hand you use to manipulate screwdrivers! You should then be able to tighten the screws if you just don't get too anxious to start the threads.

L1 is a chore, but you should do fine if you are careful. At least mine works (I think)! However, several things are left unsaid in the instructions for L1 that dummies like me need to have spelled out. For example, turn 60 is the last turn. It doesn't say that here, but it does on the schematic.

Also, the BEGINNING of turn one is connected to lug one, not the first tap (which is at turn 3). This will probably be obvious to most of you, but confusion like this goes on in my shack all the time! You're probably wondering how I ever find the light switch! Some times I even amaze myself!

Good luck to those of you still working on this great kit. You are gonna love it!

72 de David W5RMZ

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996

From: talljazz@teleport.com (Dan Presley)

Subject: [8666] St.Louie Tuner

Message-ID: <v01530501adc28d519e9e@[206.163.123.96]>

>Has anyone above #200 on the list received their kit yet? I'm around 205 (I
>think) and haven't received mine yet. I sent a note to Doug asking about
>shipment status, but nothing heard; guess he is busy or something.

>

>Wanta get that sucker built in time for field day!

>

>72, Larry W1HUE/7

I'm supposed to be the "last one" #260, according to the card from Jim
Cates-and mine arrived today (5/16)

Dan N7CQR

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: camqrp@cyberg8t.com (Cam Hartford)
Subject: [8663] Surface mount stuff
Message-ID: <199605171835.LAA25387@key.cyberg8t.com>

Stan -

I fried my eyes a couple years ago putting together a Sudden receiver kit from Blue Rose in England, who now appears to be gone. Anyway, the best tip I got from them (besides small, clean soldering iron, etc) was to make a hold-down device to hold the little buggers in place while soldering them. It consists of a pair of pliers with about a 2" nail clamped in the plier's mouth. I used a rubber band wrapped on the handles to hold the jaws shut. Small Vise Grips would do well here, too. Once you have the little bug positioned on the board where you want it, place the point of the nail on top of, and the weight of the nail/pliers combo will hold it firmly while you are soldering.

One of those nice round flourescent lights with the magnifying glass in the middle would really come in handy here, too.

GL and 72,

Cam N6GA

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: "richard wilkerson" <richqrp@msn.com>
Subject: [8658] thanks
Message-ID: <UPMAIL07.199605171502080134@msn.com>

Thanks to all..All I asked was for an address and get all this help..also you have made me feel bad that I did not list my rx problem to the group.so thank you one and all for the help..I have two emails out on the rx problem and I think It will be solved..thanks again Gang..72's rich

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: torell@sicom.com (Kent Torell)
Subject: [8660] TMPS solar data
Message-ID: <v02130500adc25e384ab9@[192.91.202.41]>

Here is the solar and geomagnetic data for the 1st two weeks of the TMPS

test. The K index is calculated over a 3 hr period, and posted at 0000, 0300, etc. utc. The A index is a 24 hr averaging function of the K indicies.

```
05/01/96 10.7 FLUX=067.9 BKI=1331 2232 BAI=009
05/02/96 10.7 FLUX=067.9 BKI=2231 2102 BAI=006
05/03/96 10.7 FLUX=068.3 BKI=1231 2213 BAI=007
05/04/96 10.7 FLUX=069.4 BKI=2212 2222 BAI=006
05/05/96 10.7 FLUX=070.8 BKI=2322 2120 BAI=006
05/06/96 10.7 FLUX=074.6 BKI=1221 1111 BAI=004
05/07/96 10.7 FLUX=074.9 BKI=2212 2222 BAI=006
05/08/96 10.7 FLUX=076.1 BKI=3331 1221 BAI=008
05/09/96 10.7 FLUX=076 BKI=1310 1211 BAI=008
05/10/96 10.7 FLUX=077.5 BKI=1310 2222 BAI=006
05/11/96 10.7 FLUX=076.5 BKI=1311 2211 BAI=005
05/12/96 10.7 FLUX=073.6 BKI=2110 1122 BAI=004
05/13/96 10.7 FLUX=072.7 BKI=4242 3332 BAI=015
05/14/96 10.7 FLUX=071.8 BKI=4332 1233 BAI=013
05/15/96 10.7 FLUX=070.9 BKI=1131 2222 BAI=006
05/16/96 10.7 FLUX=071.0 BKI=2333 2233 BAI=012
```

Kent Torell torell@sicom.com 602-483-2867 x40
 SICOM 7585 E. Redfield, #202 Scottsdale, AZ 85260
 AB70A TMPs 1996 Qs=006 States=05 Confirmed=00 DX=00
 AZ CO HI KS OK

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
 From: torell@sicom.com (Kent Torell)
 Subject: [8661] weekly ionospheric forcast
 Message-ID: <v02130502adc25ae57a80@[192.91.202.41]>

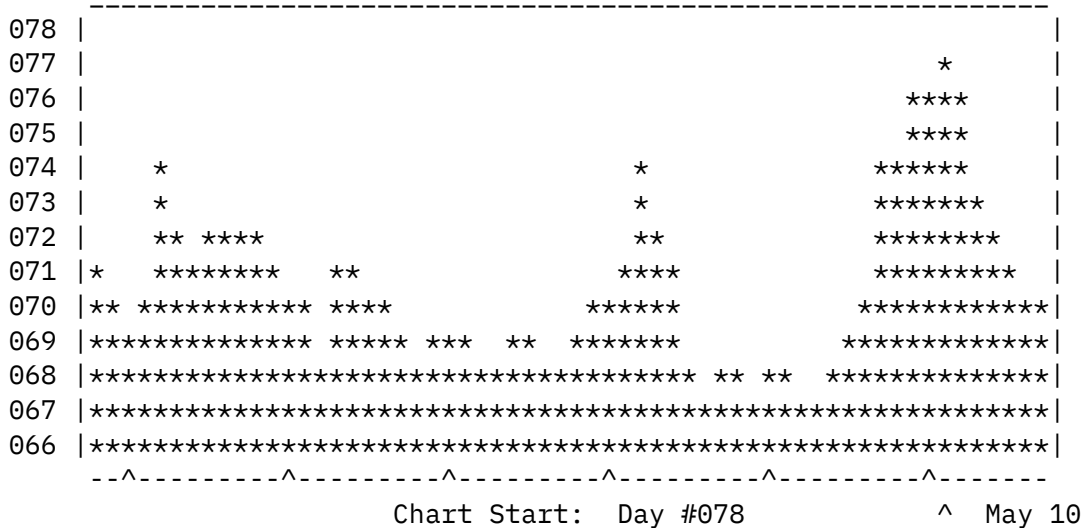
Looks like we are back to normal for next week...i.e., nominal performance.
 The 30m band should stay open into the night, tho. The predicted storms
 this week were lots weaker than expected, and none are forcast.

	10.7 cm	HF Propagation	+/-	CON	Mag	Aurora	
	SolrFlx	LO MI HI PO SWF	%MUF	%K	Ap	LO MI HI	
May 17	070	G G F F 01 00	75	3	12	NV NV LO	
18	069	G G F F 01 00	75	3	10	NV NV LO	
19	068	G G F F 01 00	75	3	10	NV NV LO	
20	068	G G F F 01 00	70	3	10	NV NV LO	

21	068		G	G	F	F	01	00	70		2	08		NV	NV	LO	
22	068		G	G	F	F	01	00	70		2	05		NV	NV	LO	
23	068		G	G	F	F	01	00	60		2	05		NV	NV	LO	
24	068		G	G	F	F	01	00	60		2	05		NV	NV	LO	
25	068		G	G	F	F	01	00	60		2	05		NV	NV	LO	
26	068		G	G	F	F	01	00	60		2	05		NV	NV	LO	

Some historical data of interest (note peak on May 10):

CUMULATIVE GRAPHICAL CHART OF THE 10.7 CM SOLAR RADIO FLUX



Kent Torell torell@sicom.com 602-483-2867 x40
 SICOM 7585 E. Redfield, #202 Scottsdale, AZ 85260
 AB70A Tmps 1996 Qs=006 States=05 Confirmed=00 DX=00
 AZ CO HI KS OK

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
 From: lve1@inel.gov (Larry V East)
 Subject: [8657] RE: 41 Foot Vertical
 Message-ID: <2.2.16.19960517145427.25b7a9ee@eloi>

An excerpt from post by JerryK0DU@aol.com:

>

>I played with the butternut for awhile and decided to build a 5/8 wave 41 ft.
>vertical for 20 meters. The butternut came down. The 41 ft. vertical went
>up and played very well on 20 meters. I used a coaxial matching section
>described in the Practical Antenna Handbook by Joseph J. Carr in his section
>on 5/8 wave verticals, and it worked very well. I was now a good S unit or
>better than Lloyd's butternut on 20 meters. Well, I got tired of being stuck
>on 20, so I took my MFJ model number 962c and put it in an old ice chest at
>the base of the 41 ft. radiator fed thru the balanced line terminals on the
>back with one terminal to the radiator and the other to the gnd system. I
>have tried using the antenna tuner in the shack with different types of feed
>lines but have found that the tuner by far works the best at the base of the
>antenna.

>

This brings back fond memories of a vertical I used back in the mid 50's --
I'm not sure where it was originally described (QST maybe?), but it worked
quit well and was used by several hams in the Wichita, KS area where I grew
up (my original call was W0CTK). It was 40 feet high, made from four 10-foot
TV masts and had a coil to ground -- made of 8 to 10 turns of 1/4 in. copper
tubing air wound 8 or 9 in. in diameter as I recall. It was fed by RG-8 with
a 200 pF cap in series to the junction of the antenna and coil to ground for
40M, and fed by taping the coil on 80 and 20M. Of course, one had to go
outside and change the feed connection to change bands (we didn't mess with
"antenna tuners" much back then :-).

The thing was a 5/8 wave on 20, a "long 1/4 wave" on 40 (hence the series
cap) and a base loaded "short radiator" on 80. My ground system consisted of
a few (maybe 8 or 10) radials made from Al TV grounding wire of various
lengths buried 1-2 inches below the ground and a ground rod at the base of
the antenna. It worked very well on 40 and 20; also worked on 75/80, but
most of my activity back then was on 40M.

Haven't seen anything about such an antenna again until Jerry's recent post.
Ah yes; what goes around comes around...

72, Larry W1HUE/7

PS -- Got my Tuner Kit yesterday afternoon; guess I should have just waited
another day or so!

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996

From: Marty Rosenzweig <marty@mht.com>

Subject: [8662] Re: K0DU's 5/8 Wave 30-Meter Vertical System Detail

Message-ID: <319CC2B8.7B2B@mht.com>

JerryK0DU@aol.com wrote:

>

> I have some requests to elaborate more on my vertical, so here is the
> complete scoop.

Obviously your vertical antennas work extremely well and I find antenna theory and practice a facinating part of our hobby.

Do you have any idea what the soil conductivity in your region is? I don't mean directly under the antenna but the "far field" conductivity? My Electic Co-op here in the Colorado Rockies confirms the published data that the soil here conducts poorly because it's so rocky. Same problem with desert soils.

My point is that "Low Band Dxing" by ON4DX as well as the ARRL Antenna books claim the "far field" (including up to 100 wavelengths from the antenna) is very important for the efficiency of vertically polarized antennas (much less so for horizontally polarized) and there is nothing practical you can do about improving those conditions.

In fact, many serious DX'ers who don't live near salt water or "average" soil conductivity use horizontal antennas (at at least 1/2 wavelength above the ground) on the low bands where the effect is more prevalent. Of course, at some point the problem of getting a 80 or 160 meter dipole up 1/2 wavelength where the angle of radiation would be optimal for DX outweighs the loss of efficiency of a easier to build vertical.

I'd be interested to hear from others on the list relative to this often ignored "far field" effect. I have been debating what DX antenna I should pursue for the low bands but I guess in a couple of years we'll all be concentrating on 10, 15, 17 and 20 anyway and it won't matter!

72,
Marty, W00Q

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: Nick Franco <kf2ph@bnl.gov>
Subject: [8654] Re: My Portable Sta...very long.....
Message-ID: <319C8A95.27CB@bnl.gov>

Jim and Group,

Check out the Adventure Radio Society Home Page:
<http://members.aol.com/adradio/index.html>

This club is new and specilizes in human power means of getting to the operating location and working QRP from all different places.

Also: I wanted to comment on the antenna part of Jim's post. He mentioned a 40 and 20 meter dipole common fed with coax. I've used the following dipole on many camping trips. I've shared it before a year or so ago but figured it was appropriate with this thread to mention it.

I made a 20 meter dipole and trimmed to suit my HW-8 without a tuner. Then solder spade lugs to the end points. On the other side of the end insulator (small) I continue the dipole to make a total length for 40 meters. I feed the at the center insulator with coax (RG-58) right to the rig. This gives me a 40 and 15 meter antenna with the spade lugs connected and a 20 meter antenna with the spade lugs opened. The only slight hassle is dropping the ends a little to open and connect the spade lugs when I want to change bands. Most of the time I would try 20 meters during the day and befor dark, connect the lugs and work 40 at night. It's light for packing and can be made easily with light weight wire and lexan or some other durable plastic for the insulators.

Good Day All
Nick

--
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From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: George Dorner <gdorner@kiwi.pyrotechnics.com>
Subject: [8652] Re: Portable Stations
Message-ID: <Pine.LNX.3.91.960517081834.22027A-1000000@kiwi.pyrotechnics.com>

Gee, that's MY portable station. I use a Super CMOS keyer, too.

Well, I would recommend a hockey puck and fishline for launching the antenna and lots of duct tape to improve the station, even though it won't make it lighter!

geo/w9zsj

From owner-qrp-1@Lehigh.EDU Fri May 17 22:32:07 1996
From: herr@ridgecrest.ca.us (Michael Herr)
Subject: [8669] Re: Portable Stations
Message-ID: <v01530502adc367bbc2e3@[199.120.150.83]>

>On a slightly different note...

>I got to thinking last weekend about something quick and dirty for
>Field Day - the local club will be running an exact carbon copy of
>.done for the past 10 years or so), which doesn't interest me at all.

....

>To my mind, this is also much more in the spirit of emergency
>preparedness - a station that you can take anywhere, any time, and be
>on the air in seconds.

>Hmmm...

>Laura Halliday VE7LDH	"C'est une femme mutine, assez
>lhalliday@creo.bc.ca	elegante, grave et legere, ayant le
>ve7ldh@amsat.org	sens du confort et du plaisir
>Locator: CN89mg	en tout." - C. Deneuve

Go for it! My wife Paula, N6VGW, and I did a backpack portable QRP field day type operation for QRP To The Field and had a great time. I would do it again for regular Fiel Day if it wasn't for a family reunion on the weekend.

72

Mike WA6ARA